

SCANNED

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I-001805 (C) RC



Mining  
Form  
MR-500

S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF LAND AND WASTE MANAGEMENT  
DIVISION OF MINING AND SOLID WASTE PERMITTING  
2600 Bull Street, Columbia, SC 29201  
Telephone Number: (803) 896-4261 Fax Number: (803) 896-4001

RECLAMATION PLAN  
DHEC FORM 500 DATE VERSION ADOPTED 7/1/94

As required in Section 48-20-90 of the South Carolina Mining Act, "An operator shall submit with his application for an operating permit a proposed reclamation plan. The reclamation plan for an operating permit only must be furnished to the local soil and water conservation district in which the mining operation is to be conducted. The plan must include as a minimum each of the elements specified in the definition of 'reclamation plan' in Section 48-20-40 and information required by the department. The reclamation plan must provide that reclamation activities, particularly those relating to control of erosion, to the extent feasible, must be conducted simultaneously with mining operations and be initiated at the earliest practicable time after completion or termination of mining on a segment of the permitted land. The plan must provide that reclamation activities must be completed within two years after completion or termination of mining on each segment of the area for which an operation permit is requested unless a longer period specifically is permitted by the department."

I. APPLICANT INFORMATION

- Name of Company: J.R. Wilson Construction Co., Inc.
- Name of Proposed Mine: Early Branch Mine County: Hampton
- Home Office Address: 1505 Yemassee Hwy (803) 943-3311  
(Street and P.O. Box) (Telephone No.)  
Varnville S.C. 29944 (803) 943-3694  
(City) (State) (Zip Code) (Fax No.)
- Local Office Address: \_\_\_\_\_  
(Street and P.O. Box) (Telephone No.)  
\_\_\_\_\_  
(City) (State) (Zip Code) (Fax No.)
- Name of company personnel and their title to be the contact for official business and correspondence: Nathan Wilson - President
- Location of Mine: Co Rd S-25-65 Early Branch  
State or County Hwy No. Nearest Town or City

II. ENVIRONMENTAL PROTECTION

- Describe practices to protect adjacent resources such as roads, wildlife areas, woodland, cropland and others during mining and reclamation.  
Access to the site will be through locked gates or chained entrances. Earthen berms are constructed in strategic locations to screen the site from adjacent landowners. Also existing perimeter planting will remain.
- Describe proposed methods to limit significant adverse effects on adjacent surface water and groundwater resources.  
All runoff from the pit & surrounding sites will drain & be contained in the pits. The sand clay bottom of these pits allows water to percolate back into the existing ground water table. Some water will be pumped across an adjacent haul road to existing ditches for drainage purposes. No
- Describe proposed methods to limit significant adverse effects on known significant cultural or historic sites within the proposed permitted area.  
there are no known cultural or historical sites within this site.

will be discharged from pits.

4. Describe method to prevent or eliminate conditions that could be hazardous to animal or fish life in or adjacent to the permitted area. All slopes will be graded 3H:1V to prevent hazards to animal life. Runoff will be detained to prevent chemical, erosion, & sediment damage to existing waterways & water bodies. Accidental spills of fuel from equipment will be immediately contained, cleaned up, & disposed of properly.

5. Describe how applicant will comply with State air quality and water quality standards as established by the S.C. Department of Health and Environmental Control.

J. R. Wilson Construction Co., Inc. will comply with all necessary SCDHEC rules & regulations. All necessary permits will be obtained as necessary from SCDHEC, such as NPDES & other general permits. All equipment used must meet air quality standards established by SCDHEC & must be maintained properly to prevent spills that could cause water quality problems @ the site.

### III. RECLAMATION OF AFFECTED AREA

6. State useful purpose(s) the affected land is being proposed for reclamation. More than one purpose may be checked, but information should be submitted to support the feasibility for each proposed purpose.

- |   |  |
|---|--|
| a. Lake or pond <input checked="" type="checkbox"/> | f. Grassland <input checked="" type="checkbox"/> |
| b. Agriculture <input type="checkbox"/>             | g. Recreation <input type="checkbox"/>           |
| c. Woodlands <input type="checkbox"/>               | h. Wetlands <input type="checkbox"/>             |
| d. Residential <input type="checkbox"/>             | i. Park <input type="checkbox"/>                 |
| e. Commercial <input type="checkbox"/>              | j. Other <input type="checkbox"/>                |

7. State the final maximum surface gradient(s) (slope) in soil, sand, or other unconsolidated materials on reclaimed land. Surface gradients steeper than 3H:1V (18 degrees or 33 percent) may be required to submit geotechnical data and studies to demonstrate that the steeper slopes will remain stable following final reclamation.

3H:1V slopes will be the maximum slope.

8. How will the final slopes in unconsolidated material be accomplished? If the slope will be by backfilling, demonstrate that there is adequate material to accomplish the stated final gradient. If gradient is to be achieved by bringing in material from outside the permitted area, state the nature of the material and approximate quantities. If the gradient is to be achieved by grading, show that there is adequate area for grading to achieve gradient (i.e., adequate distance between the property line and edge of highwall). Operator should show calculations or other appropriate information to demonstrate that there is adequate materials in backfilling and grading to meet the requirements for final slope.

The existing pit highwalls will be filled w/material from the bottom of this pit to be no steeper than 3H:1V slopes. The enlargement of this pit will maintain 3H:1V slopes as mining proceeds so no banks will have to be filled later. There is adequate material on site to accomplish this.

9. Describe the plan for revegetation or other surface treatment of affected area(s). The revegetation plan shall include but not be limited to the following: (a) planned soil test; (b) site preparation and fertilization; (c) seed or plant selection; (d) rate of seeding or amount of planting per acre; (e) maintenance.

Most of the topsoil on the active pit has been stockpiled on site - some is being sold & some is being stored for reclamation. A planned soil test will be taken to the County Extension Service to see what soil amendments must be used in preparation of all slopes. All banks will be graded, fertilized, & seeded as necessary w/Bermuda &/or Bahia grasses to establish a

lush growth. All banks will be maintained for a minimum of 24 months.

10. Provide, as a separate document, a closure plan of the mine and permitted facilities to prevent a release of contaminants from being harmful to the environment. A closure plan is not necessary for all mines, but is required where the possibility exists for (a) acid rock drainage; (b) where the National Pollutant Discharge Elimination Systems (NPDES) Permit has discharge limitation parameters other than pH and Total Suspended Solids (TSS); (c) chemically treated tailings or stockpiles (excludes fertilizer or lime for revegetation purposes).

No chemical processes are involved, no acid rock or no special NPDES parameters.

11. Method of control of contaminants and disposal of mine waste soil, rock, mineral, scrap, tailings, slimes, and other material directly connected with the mining, cleaning, and preparation of mineral substances mined and includes all waste materials deposited on or in the permit area from any source.

No processing will take place on site. All material will be hauled off in its natural state or re-spread on-site.

12. Method of reclaiming settling and/or sediment ponds.

Sediment is to be removed from the ponding area of the bottom of the pit, & respread as necessary to accommodate the final pond parameters. All disturbed areas will be stabilized, graded, sloped, fertilized, seeded & mulched as necessary.

13. Describe method of restoration or establishment of stream channels, stream banks and site drainage to a condition minimizing erosion, siltation and other pollution.

Diversions to sediment pit are to be fine graded, grassed & maintained until a stand of permanent vegetation is sufficient to withstand flow velocities is established.

14. What are the maintenance plans to insure that the reclamation practices established on the affected land will not deteriorate before released by the Department?

The site will be periodically/routinely checked for any problems until there is established vegetation on all banks as to proper satisfaction. All erosion will be replaced as necessary ASAP.

15. For final reclamation, submit information about practices to provide for safety to persons and to adjoining property in all excavations. Identify areas of potential danger (vertical walls, unstable slopes, unstable surface on clay slimes, etc.) and provide appropriate safety provisions. These provisions can include but are not limited to setbacks, fencing,

All slopes will not exceed 3H:1V the entire property is fenced &/or has earthen berms to prevent access to the site, locked gates & chains control all access to the site. Warning signs are to be posted w/ "No Trespassing" & "Keep Out". Existing vegetation to remain around perimeters.

16. What provisions will be taken to prevent noxious, odious, or foul pools of water from collecting and remaining on the mined area? For mines to be reclaimed as lakes or ponds, provide supporting information that a minimum water depth of four (4) feet on at least fifty percent (50%) of the pond surface area can be maintained.

The final depth of the ponds will be  $\pm 30'$  Deep. There is a low water table in this area & the amount of rainfall will keep the ponds more than 50% Full.

17. Identify any structures (e.g. buildings, roads) that are proposed to remain as part of final reclamation. Provide justification for leaving any structures.

*The access roads will remain for inspections & maintenance of site. There are no structures on site.*

18. Attach two (2) copies of a map of the area (referred to as the RECLAMATION MAP) that shows the reclamation practices and conservation practices to be implemented. The following should be shown:

- A. The outline of the proposed final limits of the excavation during the number of years for which the permit is requested.
- B. The approximate final surface gradient(s) and contour(s) of the area to be reclaimed. This would include the sides and bottoms of mines reclaimed ponds and lakes.
- C. The outline of the tailings disposal area.
- D. The outline of disposal areas for spoil and refuse (exclusive of tailings ponds).
- E. The approximate location of the mean shore line of any impoundment or water body and inlet and/or outlet structures which will remain upon final reclamation.
- F. The approximate locations of access roads, haul roads, ramps or buildings which will remain upon final reclamation.
- G. The approximate locations of various vegetative treatments.
- H. The proposed locations of re-established streams, ditches or drainage channels to provide for site drainage.
- I. The proposed locations of diversions, terraces, silt fences, brush barriers or other Best Management Practices to be used for preventing or controlling erosion and off-site siltation.
- J. Proposed locations of the measures to provide safety to persons and adjoining property.
- K. Segments of the mine that can be mined and reclaimed as an ongoing basis.
- L. The boundaries of the permitted area.
- M. The boundaries of the affected area for the anticipated life of the mine.
- N. The boundaries of the 100-year floodplain, where appropriate.
- O. Identify sections of mine where the final surface gradient will be achieved by grading and/or backfilling.
- P. A legend showing the name of the applicant, the name of the proposed mine, the north arrow, the county, the scale, the date of preparation and the name and title of the person who prepared the map.

THE REQUIRED RECLAMATION MAP SHALL HAVE A NEAT, LEGIBLE APPEARANCE AND BE OF SUFFICIENT SCALE TO CLEARLY SHOW THE REQUIRED INFORMATION LISTED ABOVE. THE BASE FOR THE MAP SHALL BE EITHER A SPECIALLY PREPARED LINE DRAWING, AERIAL PHOTOGRAPH, ENLARGED USGS TOPOGRAPHIC MAP OR A RECENTLY PREPARED PLAT. RECLAMATION MAP SHOULD BE THE SAME SCALE USED FOR THE SITE MAP.

#### IV. SCHEDULE FOR IMPLEMENTATION OF CONSERVATION AND RECLAMATION PRACTICES

19. As stated in Section 48-20-90 of the S.C. Mining Act, reclamation activities, to the extent feasible, must be conducted simultaneously with mining operations. Identify which areas or segments of the mine are not feasible to reclaim simultaneously with mining. Provide reasons why reclamation can not proceed simultaneously with mining in these areas.

<b>Conservation &amp; Reclamation Practices</b>	<b>Segment or Area</b>	<b>Planned</b>		<b>*Applied</b>		<b>Notes</b>
		<b>Amount</b>	<b>Year</b>	<b>Amount</b>	<b>Month/Year</b>	
Improve sump at base of pit. Armor discharge	Pit (Phase 1)		2008			maintain LOM
Install survey control markers (see Special Term & Condition #5)			2008			Note 1; maintain LOM
Mark Buffers (Phase 1)	PL		2008			Note 2; maintain LOM
Post Warning Signs	PL		2008			maintain LOM
Construct berms and vegetate			2008			Western PL Southern PL
Maintain access roads						Note 3, maintain LOM
Grade, fertilize, seed	mined out areas (Phase 1)		2016			see Note 4
Inspect, repair, maintain	(Phase 1)	6.4 ac	2016			until release by the Department
Mark Buffers (Phase 2)	PL		2015			Maintain LOM
Construct SW BMPS	Phase 2		2015			Maintain LOM
Grade, fertilize, seed			2030			
Inspect, repair, maintain	mined out areas Phases 1 & 2	18 ac	2018			until release by the Department
Mark Buffers (Phase 3)	PL		2015			Maintain LOM
Construct SW BMPS	Phase 3		2015			Maintain LOM
Grade, fertilize, seed			2030			
Inspect, repair, maintain	mined out areas Phase 1,2,3	30 ac	2030			until release by the Department

**Notes:**

1. Two permanent survey markers within the permitted area shall be located at least 100 feet apart as required in R.89-130.
2. Markers should be located prior to the start of mining. Permanently flag buffers associated with property lines, wetland areas, road and utility easements
3. Install a crushed stone apron (minimum 50') to prevent tracking of mud on road
4. Reclamation of mined out areas should be initiated within 180 days of termination of mining in those areas or earlier if grading/ soil preparation/ seeding is feasible; amount of affected acreage must be minimized.

AA – Affected Area   BMPs – Best Management Practices   LOM – Life of Mine   PA – Permitted Area   PL – Property Line   ST – Sediment Traps  
 SW – Stormwater   TS – Topsoil   WL – Wetlands

YOU ARE NOTIFIED THAT:

- 1) You, the operator, must file an application to modify the reclamation plan in the event actual reclamation varies from the set forth hereinabove; and
- 2) If at any time it appears to the Department that the activities under the reclamation plan are failing to achieve the purposes and requirements of the S.C. Mining Act, the Department may modify the RECLAMATION PLAN in accordance to Section 48-20-150.

Nathan Wilson

Signature of Applicant/Operator or his Authorized Representative

Nathan Wilson  
Printed Name of Applicant/Operator or his Authorized Representative

President / Operator  
Title

11-18-15  
Date

**Department Use Only**

Permit No.: \_\_\_\_\_ Date Application Approved: \_\_\_\_\_ Date Bond Rec'd: \_\_\_\_\_

Bond Amount: \_\_\_\_\_ Blanket or Single Bond: \_\_\_\_\_ Permit Issuance Date: \_\_\_\_\_

**ACTION TAKEN ON THIS RECLAMATION PLAN**

\_\_\_\_\_ Approved \_\_\_\_\_ Denied \_\_\_\_\_ Approved with Additional Terms and Conditions

By: \_\_\_\_\_  
DIVISION DIRECTOR

Date: \_\_\_\_\_



RECLAMATION MAP

Haul Road- Orange; Veg. Slope (3:1)- Blue; Tree Buffer- Red; Pond- Yellow; Dike- Pink

